



Phytoremediation: A green solution

Clausen, Lauge Peter Westergaard; Nielsen, Mette Algreen; Trapp, Stefan

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Tailored Improvement of
Brownfield Regeneration
in Europe

Phytoremediation: A green solution

18/09/2013 – timbre workshop, Sprotawa, Polen

Lauge Clausen: lpwc@env.dtu.dk

Mette Algreen Nielsen: mubr@env.dtu.dk

Stefan Trapp: sttr@env.dtu.dk

Content

1. Short introduction
2. The processes
3. Important to consider
4. Conclusion

1. Introduction



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Phyto = plant (old greek)

Remedium or remediation =
restoring of balance

**→ Treatment of contaminated
soil by use of plants**

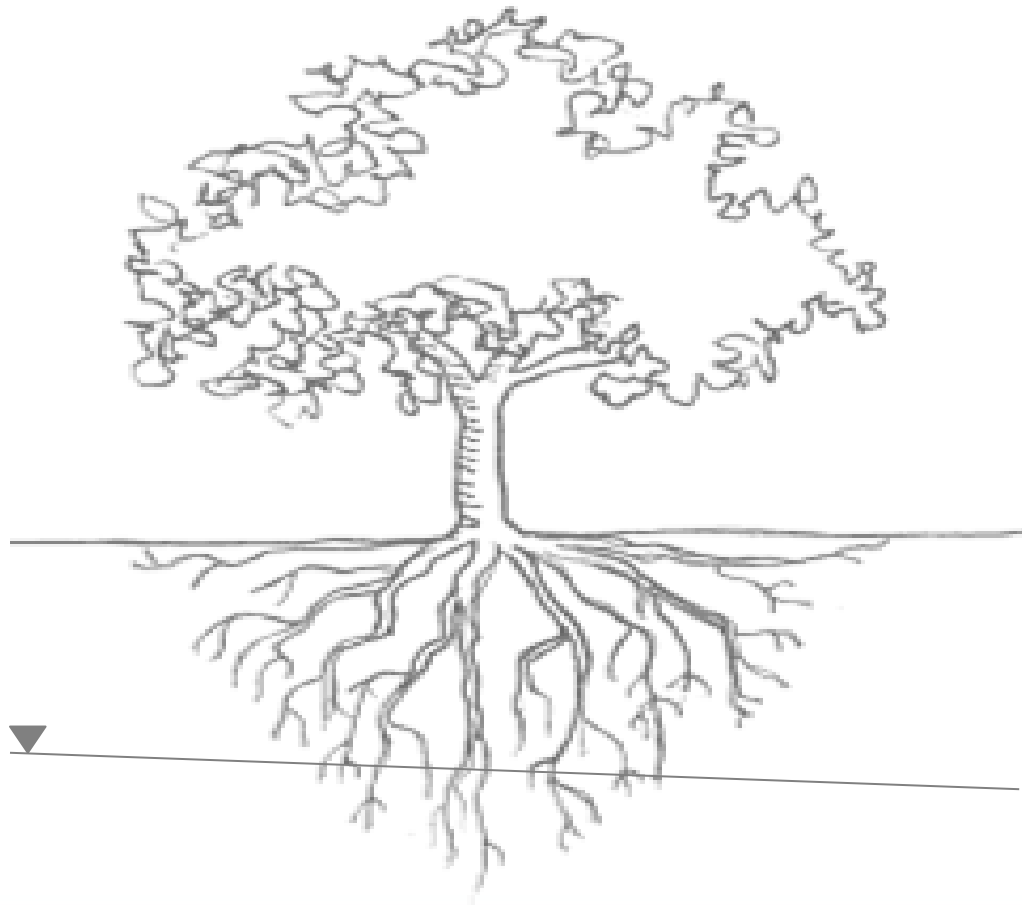




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2. The processes

What happens within and around a tree?

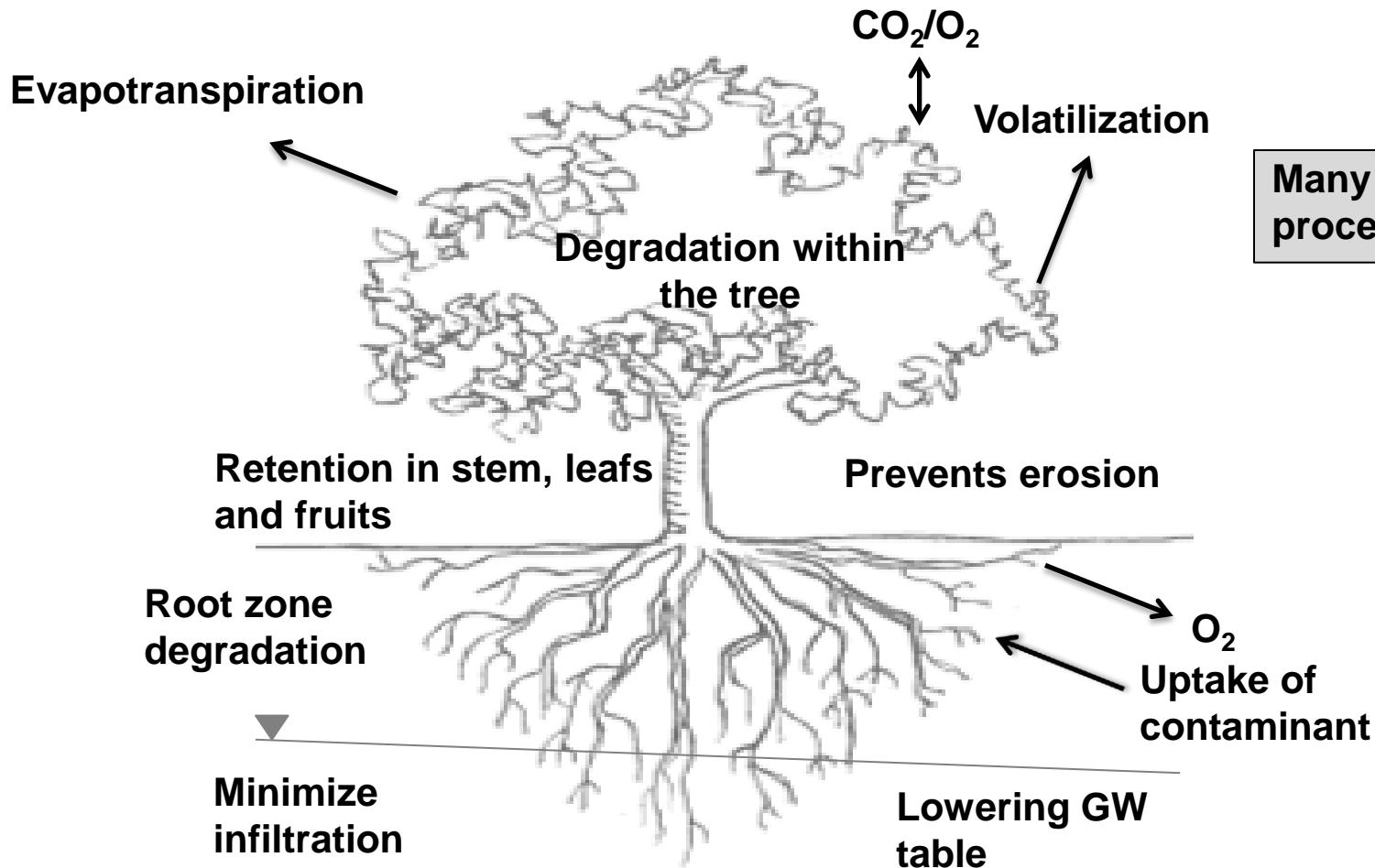




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2. The processes

What happens within and around a tree?



Many other processes



2. The processes

- **Phytoextraction:**
Transfer of pollutants to the vegetation.
- **Phytovolatilization:**
Volatilization of components through trunk or leaves.
- **Rhizo- and phytodegradationion:**
Degradation of contamination in the root zone or inside the plants.
- **Hydraulic control and soil fixation:**
Plants bind the soil and minimize infiltration.

3. Important to consider

- Phytoremediation takes time – years or even decades.
- Limited by soil toxicity and climate.
- Only useful for shallow contamination.
- The costs equals natural attenuation.
- Decrease downwards migration of contaminants.
- Plants enhance degradation by natural degraders.
- Fixates the soil.
- Looks nice during treatment.

4. Conclusion

- Often not an option at urban sites - unless a park is desired.
- Very useful for large size areas with shallow contamination.
- Very useful for low-priority sites which needs to be handled.

Thank you for your attention!

Lauge Clausen

Institution:

Technical University of Denmark (DTU)

2800 Kgs Lyngby, Denmark

Contact: lpwc@env.dtu.dk

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